CORONER'S OFFICE

Policies and Procedures Manual

Section

E

ESTABLISHING A TIME FRAME OF DEATH

Policy:

To develop a standard protocol helpful in determining and approximating a time frame from death to discovery.

Procedure and Practice:

The environment, temperature, moisture, amount of clothing, body build, and many other factors all contribute to body changes after death. The information below should be used for approximation purposes only.

BODY CHANGES

CONDITION	APPEARANCE
Blood Drying (periphery)	30 minutes to 2 hours
Livor Mortis (Post-Mortem Lividity)	
First detectable	Immediate to 2 hours
Full setting	8 to 12 hours
Rigor Mortis	
First detectable	1 to 6 hours
Fully developed	6 to 24 hours
Algor Mortis (Body Cooling)	

Core Body Temperature

A body will generally cool at a rate of 1 to 1 ½ degrees per hour from normal temperature. A CBT is usually obtained rectally or with a hypodermic probe of the liver. Environmental temps, clothing, wind, body build, and other factors will all affect the rate of cooling. One method, shown below, is used to determine an approximate cooling rate.

GLAISTER EQUATION

(98.4% - Measured Rectal Temperature

1.5 = App. Hours since death

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Blue-green discoloration of skin	
Right and left areas of abdomen	app. 24 hours
Entire abdomen	app. 36 hours
Putrefactive Changes	
Bloating	36-48 hours
Marbling	2 to 3 days
Skin blistering	3 days
Purging	4 to 5 days
Skin slippage	4 to 7 days
Adiopocere	Months
Mummification	Weeks to years
Skeletonization	Weeks to years
Eyeball Changes	
CONDITION	APPEARANCE
Cornea Drying	

Open eyelids Minutes
Closed eyelids 2 hours
Tache Noire (Conjunctiva turns black) 3 hours

Corneal Cloudiness

Open eyelids <2 hours
Closed eyelids 12-24 hours

References:

University of Dundee, Forensic Medicine Course Lecture Notes

Revisions: